

SYSTEM AND METHOD FOR PRICING A TRAVEL PRODUCT BASED ON A TRAVELER'S SPECIFIED DEGREE OF FLEXIBILITY

Field of the Invention

5 The present invention relates generally to a system for processing the sale of travel products, such as airline tickets, and, more particularly, to a system for selling travel products based on a traveler's specified degree of flexibility.

Background of the Invention

10 Airline travelers can be generally classified into two broad groups, namely, business travelers and leisure travelers. Each group tends to exhibit different characteristics and expectations. Business travelers, for example, are generally willing to pay higher prices in exchange for a more flexible ticket. For example, business travelers generally purchase their tickets closer to the time of departure, and desire a
15 fixed, convenient and reliable itinerary that can be changed without penalty. Moreover, business travelers are not especially price sensitive since business-related travel expenses are often reimbursed by a third party, such as an employer or a client.

 Leisure travelers, on the other hand, are generally willing to be more flexible with their itinerary and other expectations in exchange for a discounted fare.
20 Since leisure travel is generally discretionary, many leisure travelers will often forego such leisure travel if a reasonable fare cannot be obtained.

 In view of the diverging characteristics, expectations, and financial wherewithal of business and leisure travelers, airlines distinctly bifurcate the customer base. In addition, the travel products provided by airlines and other travel-related
25 sellers are generally separately targeted to these two extremes. In order for an airline to maximize profits, fares must be maximized for business travelers, while maintaining reasonable fares for leisure travelers. Airlines discount a limited number of advance purchase tickets for leisure travel, in an attempt to fly each aircraft as full as possible without allowing earlier-booking discount-fare leisure travelers to displace later-
30 booking full-fare business travelers.

 Airlines generally deter business travelers from getting discounted fares by imposing restrictions on discounted airline tickets, such as requiring an advance

purchase, a Saturday night stay, or imposing a penalty for itinerary changes. Airlines have adopted a number of discount programs that are targeted for leisure travelers and generally offer a discount in exchange for demonstrated traveler flexibility. For example, many airlines attempt to fill empty seats with "standby" travelers. Standby
5 travelers must typically present a standby voucher to an airline several hours before departure. The standby traveler is only permitted to board a flight if there is an available seat just before departure. Thus, standby travel can be inconvenient for the traveler because there is no guarantee that the traveler will be placed on a flight within a reasonable amount of time.

10 In addition, many airlines offer electronic mail notification services that inform registered travelers of available fare discounts on select routes a few days before the departure dates. The discounted tickets often include a number of general restrictions, such as a Saturday night stay and limited permissible itinerary changes. Furthermore, since the airlines generally withhold availability information for such
15 discount programs until relatively close to the departure time, the programs do not encourage utilization by business travelers.

Another system for selling discounted airline tickets to leisure travelers, in exchange for a flexible traveler flight-time, is disclosed in United States Patent Application Serial Number 09/238,546, entitled "Method and Apparatus for the Sale of
20 Airline-Specified Flight Tickets," assigned to the assignee of the present invention and hereinafter referred to as the "Anytime Airline System." In one embodiment, the Anytime Airline System sells an unspecified-time airline ticket to a traveler. A particular flight is selected by an airline from among the flights that fulfill the terms of the unspecified-time airline ticket. Again, the flight-time flexibilities discourage
25 business travelers who may be unwilling to risk losing a full day at one or both ends of their trip. In addition to flight-time flexibility, travelers can obtain additional discounts for further specified flexibilities, such as the airline or airports for one or both ends of their trip.

While the above-described discount travel programs permit the sale of
30 discounted travel products to leisure travelers, they are limited in ways, which, if overcome, could mutually benefit travelers and sellers of travel products alike. For

example, in each case, the traveler flexibilities required for participation in such discount programs are general in nature. The flexibilities are established by the airline and are generalized to meet the needs of the airline and permit mass marketing to broad groups of travelers. In addition, the above-described discount programs rely on the strict bifurcation of business and leisure travelers. Not all travelers, however, can always be classified into one of these two groups. Many travelers exhibit some characteristics of each group. For example, a business traveler may be sufficiently certain of his or her itinerary in advance of a desired departure date. Likewise, a business traveler may extend a primarily business trip over a weekend for personal reasons.

Thus, a need exists for a method and apparatus that more accurately establishes a price for a travel product based on the individual flexibilities of a traveler. A further need exists for a system that sells travel products based on a traveler's tendency toward business or leisure status. Yet another need exists for a method and apparatus that processes a traveler's specified degree of flexibility to determine appropriate restrictions and a corresponding discounted price.

Summary of the Invention

Generally, a method and apparatus are disclosed for processing requests from a traveler for a travel product that is priced in accordance with a specified degree of flexibility. The disclosed system evaluates the traveler's specified degree of flexibility and determines an appropriate price and corresponding customized restrictions. According to one aspect of the invention, each travel product is evaluated in terms of one or more variable components, each having a range of possible options. For each applicable variable component, the traveler specifies his or her degree of flexibility, if any. The stated degree of flexibility is used to evaluate the traveler's tendency toward a business or leisure status and to determine appropriate restrictions for the individual traveler and a corresponding price.

The present invention permits customized restrictions to be tailored to a particular traveler. As used herein, customized restrictions are a set of restrictions established by the seller of a travel product that satisfy the individual traveler's specified

degree of flexibility. Thus, the customized restrictions are a subset of the traveler's specified degree of flexibility, containing only those restrictions that are significant to the airline. Travelers willing to be more flexible can be rewarded with a lower price. Likewise, airlines can extract more revenue from its customer base when restrictions are established in proportion to price and traveler-specified flexibilities. The present invention allows airlines to reach price-sensitive yet flexible travelers who could not previously meet generalized restrictions or prices or both. In addition, the clearly defined customized restrictions required of such price-sensitive yet flexible travelers allow the airline to more easily place such price-sensitive yet flexible travelers on a particular flight without necessarily displacing a higher paying traveler.

According to another feature of the present invention, the traveler's degree of flexibility is evaluated and a corresponding price is determined based on the traveler's stated degree of flexibility. The price may be obtained by, for example, discounting an established price, such as a published commercial fare, or applying a premium to a wholesale price. The present invention allows a traveler who is closer to a leisure status to be rewarded with proportionally lower prices. Likewise, a traveler who is closer to a business status can be required to pay higher prices, albeit with less restrictions. In one implementation, a flexibility rating can be compared to flexibility ratings for a hypothetical extreme leisure traveler (most flexible traveler) and a hypothetical extreme business traveler (least flexible traveler) to derive a proportional price. For example, the hypothetical extreme business traveler having the lowest flexibility rating may not be assigned any discount (thus, requiring full-fare). Alternatively, an appropriate price can be obtained in proportion to the number of travel products that satisfy the traveler's specified degree of flexibility.

The present invention rewards a traveler that commits to a specified degree of flexibility for a travel product with a discounted fare, subject to one or more customized restrictions. The traveler's commitment may be established, for example, by requiring the traveler to purchase a travel product that satisfies the specified degree of flexibility, or by charging a penalty if the traveler fails to purchase a travel product that satisfies the specified degree of flexibility.

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In a "voucher-sale" embodiment, a voucher is issued to a traveler that establishes a right to travel, subject to customized restrictions that are based in part on the specified degree of flexibility, and optionally further subject to availability. The voucher can be exchanged for a confirmed ticket in accordance with the customized restrictions specified by the corresponding airline. In a "confirmed-sale" embodiment, confirmed or reserved tickets are provided after the traveler's specified degree of flexibility has been evaluated and a corresponding price has been established. The present invention also contemplates a "buyer-driven" embodiment and a "seller-driven" embodiment. In a buyer-driven embodiment, the traveler specifies a maximum price for which the traveler will commit to a specified degree of flexibility. In a seller-driven embodiment, the seller determines a price for which the seller agrees to sell a travel product that satisfies a traveler's specified degree of flexibility.

A more complete understanding of the present invention, as well as further features and advantages of the present invention, will be obtained by reference to the following detailed description and drawings.

Brief Description of the Drawings

FIG. 1 illustrates a network environment for processing the sale of travel products in accordance with the present invention;

FIG. 2 is a schematic block diagram of an exemplary server of FIG. 1;

FIG. 3 illustrates a sample table from the inventory database of FIG. 2;

FIGS. 4A and 4B, collectively, illustrate a sample table from the flexibility scoring database of FIG. 2;

FIG. 5 illustrates a sample table from the issued voucher database of FIG. 2;

FIGS. 6A through 6C, collectively, are a flowchart describing an exemplary flexibility evaluation process implemented by the server of FIG. 2;

FIG. 7 illustrates an exemplary graphical user interface for receiving a request to purchase a travel product that is priced based on a specified degree of flexibility; and

FIG. 8 illustrates a voucher that can be exchanged for a confirmed ticket in accordance with one embodiment of the present invention.

Detailed Description

FIG. 1 illustrates a network environment 100 for interconnecting one or more user devices 130-1 through 130-N, hereinafter collectively referred to as user devices 130, a server 200, discussed below in conjunction with FIG. 2, and an optional conventional payment processor server 110. The communications network 120 may be embodied, for example, as the Internet, public switched telephone network (PSTN), dedicated data lines, cellular network, Personal Communication Systems ("PCS") network, microwave network, satellite network or a combination of the foregoing. While the invention is illustrated in an airline travel environment, the present invention could be utilized to sell any travel-related products, such as car rentals, hotel rooms, or cruises, as would be apparent to a person of ordinary skill in the art.

According to one feature of the present invention, each travel product is evaluated in terms of one or more variable components. A variable component is any portion of a travel product having a range of possible options. For example, for an airline ticket, the variable components may be the times and dates of departure or arrival, origination and destination airports, number of stops and seat position (location assignment). For each applicable variable component, the traveler specifies his or her degree of flexibility, if any, which are collectively referred to as the traveler's specified degree of flexibility. Thereafter, the traveler's tendency toward business or leisure status is evaluated. In this manner, the seller of a travel product can utilize the specified degree of flexibility to determine appropriate customized restrictions for the individual traveler and a corresponding price.

According to another feature of the present invention, the traveler's degree of flexibility is evaluated and a resulting flexibility rating is utilized to determine a corresponding price. The price may be obtained, for example, by discounting a published commercial fare, a published sale price, or a forecasted price based on, for example, historical sales information. Alternatively, the price may be obtained by applying a premium to a wholesale price. The present invention allows an airline to

more accurately address and accommodate the tendency of the traveler toward business or leisure status. In this manner, a traveler who is closer to a leisure status can be rewarded with lower prices, albeit with more restrictions. Likewise, a traveler who is closer to a business status can be required to pay higher prices, albeit with less restrictions.

In one implementation, a flexibility continuum is established between a hypothetical extreme leisure traveler (most flexible traveler) and a hypothetical extreme business traveler (least flexible traveler). The hypothetical extreme business traveler and hypothetical extreme leisure traveler are assigned a minimum and maximum flexibility rating, respectively, and a corresponding discount. For example, the hypothetical extreme business traveler may be assigned the lowest flexibility rating and not be assigned any discount (thus, requiring full-fare). A traveler's specified degree of flexibility is then evaluated, and the flexibility rating is prorated relative to the leisure-business traveler continuum to obtain an applicable price.

In a further variation, an appropriate price is obtained in proportion to the number of travel products that satisfy the traveler's specified degree of flexibility. The sellers of travel products benefit from having greater flexibility in selecting a particular travel product from among the possible travel products. Thus, in an alternate embodiment, the traveler is rewarded for his or her flexibility with a price that is discounted in proportion to the number of travel products that satisfy the traveler's specified degree of flexibility. In the illustrative airline embodiment, for example, a traveler is rewarded with a percentage discount that increases in accordance with the number of available flights that satisfy the traveler's specified degree of flexibility.

According to a further feature of the present invention, a traveler who commits to a specified degree of flexibility for a travel product is rewarded for such flexibility with a discounted fare, subject to one or more customized restrictions. The traveler's commitment may be established, for example, by requiring the traveler to purchase a travel product that satisfies the specified degree of flexibility, or by charging a penalty if the traveler fails to purchase a travel product that satisfies the specified degree of flexibility. Generally, after a traveler submits a request for a travel product with a specified degree of flexibility, for example, using the graphical user interface

700 discussed below in conjunction with FIG. 7, the seller of the travel product evaluates the traveler's flexibilities to determine a set of applicable customized restrictions. As used herein, customized restrictions are restrictions established by the airline that satisfy the individual traveler's specified degree of flexibility. Thus, the customized restrictions are a subset of the traveler's specified degree of flexibility, containing only those restrictions that are significant to the airline. For example, while a traveler's specified degree of flexibility may permit two stops on each end of a traveler's itinerary, the customized restrictions established by the airline may only require one stop.

Thus, the present invention permits customized restrictions to be tailored to a particular traveler, and thereby benefits both travelers and sellers of travel products alike. Specifically, when restrictions are commensurate with price and traveler-specified flexibilities, the travel product fits the needs of each traveler more closely. In this manner, travelers willing to be more flexible can be rewarded with a lower price. Likewise, airlines can extract more revenue from their customer bases when restrictions are established in proportion to price and traveler-specified flexibilities. The airline can reach price-sensitive yet flexible travelers who could not previously meet generalized restrictions or prices or both. Meanwhile, the clearly defined customized restrictions required of such price-sensitive yet flexible travelers allow the airline to more easily place such price-sensitive yet flexible travelers on a particular flight without necessarily displacing a higher paying traveler.

In a "voucher-sale" embodiment, a voucher is issued to a traveler that establishes a right to travel, subject to customized restrictions that are based in part on the specified degree of flexibility, and optionally further subject to availability. The voucher can be exchanged for a confirmed ticket in accordance with the customized restrictions specified by the corresponding airline. In a "confirmed-sale" embodiment, confirmed or reserved tickets are provided after the traveler's specified degree of flexibility has been evaluated and a corresponding price has been established. The present invention also contemplates a "buyer-driven" embodiment and a "seller-driven" embodiment. In a buyer-driven embodiment, the traveler specifies a maximum price for which the traveler will commit to a specified degree of flexibility. In a seller-driven

embodiment, the seller determines a price for which the seller agrees to sell a travel product that satisfies a traveler's specified degree of flexibility. Furthermore, all possible combinations of the "voucher-sale" and "confirmed-sale" embodiments and the "buyer-driven" and "seller-driven" embodiments are contemplated.

5 FIG. 2 is a block diagram showing the architecture of an illustrative server 200. The server 200 processes requests from travelers for travel products in accordance with a specified degree of flexibility, and determines an appropriate price and corresponding customized restrictions. The server 200 includes certain well-known hardware components, such as a data storage device 210, a processor 250, an input
10 device 260, an output device 270 and a communications port 280. The processor 250 may be linked to each of the other listed elements, either by means of a shared data bus, or dedicated connections, as shown in FIG. 2. The communications port 280 connects the server 200 to each user device 130 and payment processor server 110, as shown in FIG. 1. The communications port 280 can include multiple communication channels
15 for simultaneously establishing a plurality of connections.

 The data storage device 210 is operable to store a program 220 that includes one or more instructions, such as those discussed further below in conjunction with FIGS. 6A through 6C, which the processor 250 is operable to retrieve, interpret and execute. For example, the data storage device 210 may store instructions
20 representing processes to accomplish the transfer of required payments, charges and debits. The execution of such accounting transactions can be secured in a conventional manner, for example, using well-known cryptographic techniques.

 As discussed further below in conjunction with FIGS. 3, 4A and 4B, and 5, the data storage device 210 includes an inventory database 300, a flexibility scoring
25 database 400 and an issued voucher database 500. The inventory database 300 stores information on the travel products that are available for sale by the server 200. In the illustrative airline implementation, the inventory database 300 stores flight data information, such as the flight data information that is typically accessible through a computer reservation system (CRS) or airline reservation system (ARS). The flexibility
30 scoring database 400 stores information that is used to evaluate the traveler's specified degree of flexibility and derive an appropriate price, in the illustrative implementation.

For example, the exemplary flexibility scoring database 400 indicates the degrees to which each variable component of an airline product can be customized for flexibility, and the corresponding relative importance of the component to the airline. The issued voucher database 500 stores information on each voucher that has been issued in accordance with the "voucher-sale" embodiment of the present invention.

DATABASES

FIG. 3 illustrates an exemplary inventory database 300 that stores information on the travel products that are available for sale, such as flight data information for a number of representative flights in the illustrative airline embodiment.

The exemplary inventory database 300 maintains a plurality of records, each associated with a different flight. For each flight number listed in field 310, the seller database 300 indicates the corresponding origination and destination (O&D) cities (or airports), departure date and time, stop-over information, and arrival date and time in fields 320 through 350, respectively. In addition, the inventory database 300 records the current availability for each flight, for example, by class of service or seat location, in field 360, and the corresponding retail price and available meal options in fields 370 and 380, respectively. It is noted that the retail price recorded in field 360 may be obtained dynamically or periodically from a revenue management system (RMS) (not shown) that dynamically allocates inventory to each available fare. Thus, the discounted prices calculated in accordance with the present invention may reflect fluctuations in market forces.

FIGS. 4A and 4B, collectively, illustrate an exemplary flexibility scoring database 400 that stores information that is used to evaluate the customer's specified degree of flexibility and derive an appropriate discount. For example, the exemplary flexibility scoring database 400 shown in FIGS. 4A and 4B indicates the degrees to which each variable component of an airline product can be customized according to the flexibility of a given traveler, and the corresponding relative importance of the component to the airline. The illustrative flexibility scoring database 400 may be associated, for example, with one or more O&D pairs of a given airline. In addition, the data recorded in the illustrative flexibility scoring database 400 may only be applicable for certain periods of time. Thus, multiple versions of the illustrative

flexibility scoring database 400 may be maintained by an airline, with each version corresponding to a different O&D pair and applicable time frame.

The flexibility scoring database 400 shown in FIGS. 4A and 4B maintains a plurality of records, each associated with a different variable component of an airline product, such as a flight. For each variable component listed in field 410, the flexibility scoring database 400 includes the possible user selections and corresponding points in field 420 and a corresponding weighting factor relative to other variable components is recorded in field 430. Thus, each of the degrees of flexibility for each variable component are assigned a corresponding number of points (recorded in field 420), that can be earned by a given traveler for selecting a particular degree of flexibility. In this manner, an airline or another seller of a travel product can weight the variable components in accordance with the economic importance of each variable component to the airline (or seller). As discussed below, the points are totaled and used to calculate a price that is commensurate with the overall specified degree of flexibility. Other methods of calculating a score based on the variable components will be understood by those skilled in the art to be within the scope of the present invention.

It is again noted that the variable components and corresponding possible user selections and associated points may vary, for example, for different airlines, for different O&D pairs of the same airline or for different applicable time periods. For example, the "number of stops" may not be an applicable variable component for an O&D pair having only direct flights, such as flights between New York and Boston. Fields 440 and 450 indicate the score for each variable component for the hypothetical most flexible traveler and hypothetical least flexible traveler, respectively. In other words, the score for the hypothetical most flexible traveler for a given variable component is obtained by multiplying the selection with the highest number of corresponding points from field 420 by the weighting factor recorded in field 430. Likewise, the score for the hypothetical least flexible traveler for a given variable component is obtained by multiplying the selection with the lowest number of corresponding points from field 420 by the weighting factor recorded in field 430. Other methods of obtaining such scores will be understood by those skilled in the art to be within the scope of the present invention.

The flexibility scoring database 400 also indicates the corresponding total number of points for the hypothetical most flexible traveler and hypothetical least flexible traveler, respectively, in record 460. A percentage of the full retail price for each of the hypothetical most flexible traveler and hypothetical least flexible traveler is recorded in the corresponding entry in record 470. In other words, the hypothetical most flexible traveler will pay the lowest price, in accordance with the maximum discount set forth in record 470, and the hypothetical least flexible traveler will pay the highest price, in accordance with the minimum discount set forth in record 470. For the illustrative data set forth in the flexibility scoring database 400 of FIG. 4, the hypothetical most flexible travelers will be awarded a fifty percent (50%) discount off of the retail price. Those of ordinary skill will appreciate that other percentages could be used as desired. As discussed further below, the total flexibility score of a traveler, relative to the most and least flexible scores, is used to calculate the price that a given traveler should pay for a travel product meeting their specified degree of flexibility.

In an alternate implementation, the possible user selections for each variable component of a travel product can be assigned a corresponding monetary amount. In this manner, a discount for a traveler can be calculated by, for example, totaling all of the applicable monetary discount amounts and subtracting the total discount from the estimated commercial fare. In a further variation, the possible user selections and corresponding monetary amount for each variable component can be presented to the traveler with "buyout" provisions. For example, the traveler could buyout a date restriction for an indicated price. In theory, if the traveler bought out all the restrictions, the traveler would pay full retail price. It is noted that in a buyer-driven embodiment, both the percentage and monetary discount embodiments, each of the possible user selections and corresponding points or monetary amount for each variable component can be presented to the traveler before the traveler names their price. In yet another variation, the server 200 can utilize static rules for matching a traveler's specified degree of flexibility and price requirements, if any, with available inventory. FIG. 5 illustrates an exemplary issued voucher database 500 that stores information on each voucher that has been issued in accordance with the "voucher-sale" embodiment of the present invention. The issued voucher database 500 maintains a

plurality of records, each associated with a different voucher. For each voucher identified by a voucher identifier in field 510, the issued voucher database 500 includes the corresponding price paid in field 520 and the corresponding customized restrictions in field 530.

PROCESSES

As previously indicated, the server 200 executes a flexibility evaluation process 600, shown in FIGS. 6A through 6C, to process requests from travelers for discounted tickets in accordance with a specified degree of flexibility, and determine an appropriate price and corresponding customized restrictions. The flexibility evaluation process 600 evaluates the specified degree of flexibility associated with a purchase request.

As shown in FIG. 6A, the flexibility evaluation process 600 initially receives a purchase request from a traveler during step 605 that includes the traveler's specified degree of flexibility and a payment identifier, for example, by means of a graphical user interface (GUI), such as the GUI discussed further below in conjunction with FIG. 7. As previously indicated, a buyer-driven embodiment of the present invention allows the traveler to name a price for a travel product that falls within the traveler's specified degree of flexibility. Thus, in a buyer-driven embodiment, the purchase request also includes a maximum offer price that the traveler is willing to pay for the specified degree of flexibility. In the illustrative implementation discussed in conjunction with FIG. 7, the traveler's flexibilities are specified in terms of a preferred or target selection for each variable component, together with a tolerance or window for each variable component. For example, if a traveler wishes to depart within a four hour time window between 6 a.m. and 10 a.m. on a given day, the traveler can specify 8 a.m. as a target departure time, and specify a two hour time tolerance (target time plus or minus two hours). Alternatively, the traveler can specify an acceptable window of 6 a.m. through 10 a.m., without providing a target departure time.

It is noted that the payment identifier received during step 605 can optionally be used to establish the traveler's commitment, for example, by requiring the traveler to purchase a travel product that satisfies the specified degree of flexibility, or

by charging a penalty if the traveler fails to purchase a travel product that satisfies the specified degree of flexibility.

The traveler is optionally pre-authorized for the estimated transaction price during step 610, for example, by verifying an account status, credit availability or account balance information. In a buyer-driven embodiment, the estimated transaction price should be the maximum offer price specified by the traveler. In a seller-driven embodiment, the estimated transaction price may be, for example, the actual retail price or an estimated price obtained from historical sales information.

The inventory database 300 is queried during step 615 to determine if there are any possible retail products, such as specific flights, that fall within the traveler's specified degree of flexibility. If it is determined during step 615 that there are no retail products that fall within the traveler's specified degree of flexibility, then a rejection message is transmitted to the traveler during step 620. If, however, it is determined during step 615 that there are retail products that fall within the traveler's specified degree of flexibility, then the magnitude of a discount for which the traveler may be eligible is determined during step 625.

A total flexibility score is calculated during step 625 using the user-specified selection and corresponding point assignments from the flexibility scoring database 400 (FIG. 4) for each variable component of the travel product. As discussed further below in conjunction with FIG. 7, a percentage discount for the current traveler is derived using the total flexibility score, prorated relative to the leisure-business traveler continuum discussed above.

Thereafter, the qualifying products that meet the traveler's specified degree of flexibility and offer price (if specified) are identified during step 630 from among the otherwise possible retail products identified during step 615. In a buyer-driven embodiment, the products meeting the traveler's offer price are identified by multiplying the retail prices of the possible retail products, as obtained from the appropriate entry of the inventory database 300 (FIG. 3) by the calculated percentage discount for the current traveler obtained during step 625 and comparing the result to the offer price.

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The customized restrictions applicable to the individual traveler are identified by the airline (or another seller of travel products) during step 635, for example, by identifying restrictions that are common to the qualifying retail products meeting the traveler's offer price (identified during step 630). As previously indicated, the customized restrictions are a subset of the traveler's specified degree of flexibility. The customized restrictions may be, for example, (i) a list of the flights that are qualifying retail products meeting the traveler's specified degree of flexibility and offer price (if any); or (ii) a subset of the flights that are qualifying retail products meeting the traveler's specified degree of flexibility and offer price (if any) that additionally satisfy one or more additional customized restrictions, such as at least one layover or a Saturday night stay. In one variation, the customized restrictions may be further filtered to ensure that the traveler does not receive the requested target or preferred travel product at a discount. For example, one or more flights from among the list of qualifying flights may be selected randomly, to maximize airline revenue, for example, through load balancing, or such that the most dissimilar travel products within the specified degree of flexibility are selected.

The customized restrictions applicable to the individual traveler are presented to the traveler during step 640 (FIG. 6B). Thereafter, a test is performed during step 645 to determine if the present transaction is a voucher-sale or a confirmed-sale. In other words, the test performed during step 645 determines whether the traveler is seeking a voucher, that can be exchanged for a confirmed ticket in accordance with the customized restrictions specified by the corresponding airline, or a confirmed or reserved ticket. In the "voucher-sale" embodiment, vouchers are issued to a traveler that establish a right to travel, subject to customized restrictions that are based in part on the specified degree of flexibility, and optionally further subject to availability. It is noted that a given airline can implement a pure "voucher-sale" embodiment, a pure "confirmed-sale" embodiment, or a combination of both embodiments. The test performed during step 645 is for illustration only and contemplates a combination of both the "voucher-sale" and "confirmed-sale" embodiments.

If it is determined during step 645 that the present transaction is a confirmed-sale, then a further test is performed during step 650 to determine if the traveler accepts any identified qualifying products. If it is determined during step 650 that the traveler has rejected all of the identified qualifying products, then a penalty is levied against the traveler, for example, during step 652 using the received payment identifier before program control terminates.

If, however, it is determined during step 650 that the traveler has accepted one or more of the identified qualifying products, then the selected travel product is identified during step 655. The payment is processed during step 660 at the selling price. For example, for credit or debit card transactions the payment processor server 110 can process the payment transaction in a known manner. Likewise, electronic currency payments can be processed in a known manner. It is again noted that in a buyer-driven embodiment the selling price will be the maximum offer price specified by the traveler, and in a seller-driven embodiment the selling price will be a price specified by the airline, such as a price based on the specified degree of flexibility. The confirmed ticket (or reservation) is issued using a computer reservation system (CRS) or an airline reservation system (ARS) during step 665, before program control terminates.

If, however, it was determined during step 645 that the present transaction is a voucher-sale, then a further test is performed during step 670 (FIG. 6C) to determine if the traveler accepts the customized restrictions. If it is determined during step 670 that the traveler has rejected the customized restrictions, then a penalty is levied against the traveler using the received payment identifier during step 675, before program control terminates. The penalty amount may be a fixed amount stored in memory, or a predefined percentage of the estimated transaction price determined during step 610.

If, however, it is determined during step 670 that the traveler has accepted the customized restrictions, then payment is processed during step 680 at the selling price, in the manner described above. It is again noted that in a buyer-driven embodiment the selling price will be the maximum offer price specified by the traveler, and in a seller-driven embodiment the selling price will be a price specified by the

airline, such as a price based on the specified degree of flexibility. A voucher, such as the voucher discussed below in conjunction with FIG. 8, is generated during step 685, for example, by creating an electronic representation of the voucher 800 or by printing a paper version of the voucher 800, and a voucher identifier and related information is stored in the issued voucher database 500. The voucher containing the appropriate customized restrictions for the traveler is provided (electronically or by means of a conventional mail delivery system) to the user device 130, before program control terminates.

FIG. 7 illustrates an exemplary graphical user interface (GUI) 700 in accordance with an embodiment of the present invention for receiving a request to purchase a discounted travel product according to a specified degree of flexibility. The graphical user interface (GUI) 700 is an example of one or more Web pages that may be utilized by a traveler to enter his or her purchase request, including a specified degree of flexibility and an offer price (in a buyer-driven implementation). It is noted that fields of the graphical user interface (GUI) 700 that are to be populated with traveler-specified data, such as fields 711-718, may be configured to accept any data from the traveler, or may provide suggested data, for example, in the form of pull-down menus or check-off boxes.

The illustrative data set forth in the graphical user interface (GUI) 700 of FIG. 7 entitles the corresponding traveler to a discount of 25% off of the retail price, using the exemplary point assignments set forth in the flexibility scoring database 400 of FIG. 4. In this example, the scores for each selection from field 420, when multiplied by the corresponding weighting factors from field 430, yield a total score of 134, as follows:

Variable Component Selection	Point Assignment	Score (Point Assignment*Weighting Factor)
2 origination airports	1	3
1 destination airport	0	0
within 1 day of departure date	5	50
within 12 hours of departure time	4	36
no tolerance on arrival date	0	0
within 2 hours of arrival time	2	18

one stop	2	16
any seat	2	8
any meal	1	1
TOTAL FLEXIBILITY		132
SCORE:		

The total flexibility score, when prorated on the leisure-business traveler continuum, yields a discount of 25.48262% off of the retail price, as follows:

$$259/.5 = 132/X$$

$$5 \quad X = .2548262$$

Thus, assuming that qualifying products in fact exist, the traveler will be allowed to purchase a voucher for 25% off the retail price. Thus, in a buyer-driven embodiment, the traveler's offer will be accepted if the offer price is greater than or equal to the retail price multiplied by .75. In a seller-driven embodiment, the traveler will be presented with an opportunity to purchase a travel product that meets the specified degree of flexibility for 25% off of the retail price.

FIG. 8 illustrates a voucher 800 that can be exchanged by a traveler for a confirmed ticket in accordance with one embodiment of the present invention. The voucher 800 represents a redeemable right to purchase the corresponding travel product, subject to the indicated customized restrictions 820, including availability. The illustrative data on the voucher 800 of FIG. 8 corresponds to a voucher issued to the traveler associated with the data set forth in the exemplary graphical user interface (GUI) 700 of FIG. 7.

It is to be understood that the embodiments and variations shown and described herein are merely illustrative of the principles of this invention and that various modifications may be implemented by those skilled in the art without departing from the scope and spirit of the invention. For example, while the invention has been illustrated in an airline travel environment, the present invention could be utilized to sell any travel products, such as car rentals, hotel rooms, or cruises, as would be apparent to a person of ordinary skill in the art. In addition, while the present invention has been illustrated for use by a single airline, the present invention could be implemented by a plurality of airlines or a third party on behalf of a number of airlines.